

CERTIFICATE

Issued to:
Applicant:
TCI Telecomunicazioni Italia Srl
Via Parma 14
21047 Saronno (VA), Italy

Licensee:
TCI Telecomunicazioni Italia Srl
Via Parma 14
21047 Saronno (VA), Italy

Product : Electronic controlgear for LED modules
Trade name(s) : TCI, TCI (with little dragon), TCI LED, TCI LED (with little dragon),
TCI LIGHT (with little dragon and ball in square), TCI LIGHT Saronno Italy or
TN101
Type(s)/model(s) : BMU MD (series), DC MINI MD (series), MICRO MD (series) and
MINI MD (series)

The product and any acceptable variation thereto is specified in the Annex to this certificate and the documents therein referred to.

DEKRA hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to the standard EN 61347-2-13:2014, EN 61347-2-13:2014/A1:2017, EN 61347-1:2015, EN 62384:2006 and EN 62384:2006/A1:2009
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2033015

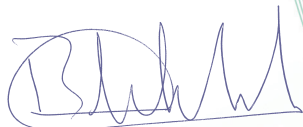
DEKRA hereby grants the right to use the ENEC certification mark.

The ENEC certification mark may be applied to the product as specified in this certificate for the duration of the ENEC certification agreement and under the conditions of the ENEC certification agreement.

This certificate is issued on 19 January 2021 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-117390

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



R Zhou
Certification Manager

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DUTCH ACCREDITATION
COUNCIL



SPECIFICATION OF THE CERTIFIED PRODUCT**Product data**

Product	: Electronic controlgear for LED modules
Trade name(s)	: TCI, TCI (with little dragon), TCI LED, TCI LED (with little dragon), TCI LIGHT (with little dragon and ball in square), TCI LIGHT Saronno Italy or TN101
Type(s)/model(s)	: BMU MD (series), DC MINI MD (series), MICRO MD (series) and MINI MD (series)
Primary voltage	: 220-240 V a.c.
Rated frequency	: 50/60 Hz
Primary current	: From 0,04 A to 0,12 A
Secondary power	: From 6 W to 20 W
Secondary current	: From 0,18 A to 0,7 A
Type of load	: LED modules, power LED
Classification	: Independent, Built-in

TESTS**Test requirements**

EN 61347-2-13:2014
EN 61347-2-13:2014/A1:2017
EN 61347-1:2015
EN 62384:2006
EN 62384:2006/A1:2009

Test result

The test results are laid down in DEKRA test file 350033600.

Additional information

For specific Model/Type electrical rating refer to following pages.

DEKRA test report No. 3500336.170 and 3500336.171 are laid down in DEKRA test file 350033600; they contain test results.

The list of components is laid down in test report 3500336.170.

Conclusion

The examination proved that all requirements were met.

Factory location

TCI Telecomunicazioni Italia SrL
Via Parma 14
21047 Saronno (VA), Italy

General product information: The devices are electronic SELV controlgears, intended to supply high power Light Emitting Diodes or LED modules. Primary voltage is 220-240 V, 50/60 Hz. The devices have a constant output current. The stabilized output (SEC) is dimmable by mains dimming. The output power can be up to P_{max}. The FDIM and LP models have double input terminals for looping. The Kxxxx code can replace the type reference according to the following tables:

Type/s	Input current (A)	Power Factor	Output Power (W)	Output current (A)	U _{out} (V)	t _a (°C)	t _c (°C) [1]	Thermal Protection (°C) [2]	Use [3]
MINI MD 250 OF (K2601) MINI MD 250 LP OF (K2D45) MINI 250 LP OF (K2G42)	0,07	0,95 (P>10 W)	12,5	0,25	59	-	80	-	OF
MINI MD 250 BI (K2574) MINI MD 250 LP BI (K2D46) MINI 250 LP BI (K2G38)						-25..50	75	110	BI, MM
MINI MD 250 (K2570) MINI MD 250 LP (K2D47) MINI 250 LP (K2G34)									II, MM
MINI MD 350 OF (K2602) MINI MD FDIM 350mA OF (K2759) MINI MD 350 LP OF (K2D48) MINI 350 LP OF (K2D43)	0,1	0,95 (P>12 W)	18 16,5 for FDIM	0,35	59	-	80	-	OF
MINI MD 350 BI (K2575) MINI MD FDIM 350mA BI (K2753) MINI MD 350 LP BI (K2D49) MINI 350 LP BI (K2D39)						-25..50	75	110	BI, MM
MINI MD 350 (K2571) MINI MD FDIM 350mA (K2743) MINI MD 350 LP (K2D50) MINI 350 LP (K2D35)									II, MM
MINI MD 500 OF (K2603) MINI MD 500 LP OF (K2D51) MINI 500 LP OF (K2D44)	0,11	0,95 (P>13 W)	20	0,5	50	-	80	-	OF
MINI MD 500 BI (K2576) MINI MD 500 LP BI (K2D52) MINI 500 LP BI (K2D40)						-25..45	75	110	BI, MM
MINI MD 500 (K2572) MINI MD 500 LP (K2D53) MINI 500 LP (K2D36)									II, MM
MINI MD 700 OF (K2604) MINI MD FDIM 700mA OF (K2760) MINI MD 700 LP OF (K2D54) MINI 700 LP OF (K2D45)	0,11	0,95 (P>10 W)	20	0,7	50	-	80	-	OF
MINI MD 700 BI (K2577) MINI MD FDIM 700mA BI (K2748) MINI MD 700 LP BI (K2D55) MINI 700 LP BI (K2D41)						-25..45	75	110	BI, MM
MINI MD 700 (K2573) MINI MD FDIM 700mA (K2754) MINI MD 700 LP (K2D56) MINI 700 LP (K2D37)									II, MM
MICRO MD 180 OF (K2D27)	0,04	0,96	6	0,18	50	-	80	-	OF
MICRO MD 180 BI (K2D28)						-25..45	70	100	BI, MM
MICRO MD 180 (K2D29)									II, MM
MICRO MD 250 OF (K2755)	0,05	0,96	7	0,25	35	-	80	-	OF
MICRO MD 250 BI (K2749)						-25..45	70	100	BI, MM

MICRO MD 250 (K2743)									II, MM
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Type/s	Input current (A)	Power Factor	Output Power (W)	Output current (A)	Uout (V)	t _a (°C)	t _c (°C) [1]	Thermal Protection (°C) [2]	Use [3]
MICRO MD 270 OF (K2D30)	0,06	0,96	10	0,27	50	-	80	-	OF
MICRO MD 270 BI (K2D31)						-25..45	70	100	BI, MM
MICRO MD 270 (K2D32)									II, MM
MICRO MD 350 OF (K2756)	0,06	0,9 C-0,96	10	0,35	35	-	80	-	OF
MICRO MD 350 BI (K2750)						-25..45	70	100	BI, MM
MICRO MD 350 (K2744)									II, MM
MICRO MD 500 OF (K2757)	0,06	0,9 C-0,96	10	0,5	35	-	80	-	OF
MICRO MD 500 BI (K2751)						-25..45	70	100	BI, MM
MICRO MD 500 (K2745)									II, MM
MICRO MD 700 OF (K2758)	0,06	0,8 C-0,96	10	0,7	25	-	80	-	OF
MICRO MD 700 BI (K2752)						-25..45	70	100	BI, MM
MICRO MD 700 (K2746)									II, MM
BMU MD 180 OF (K2D33)	0,05	0,96	7	0,18	50	-	80	-	OF
BMU MD 180 (K2D34)						-25..45	70	100	BI, MM
BMU MD 250 OF (K2D35)	0,05	0,9 C-0,96	7	0,25	35	-	80	-	BI
BMU MD 250 (K2D36)						-25..45	70	100	BI, MM
BMU MD 270 OF (K2D37)	0,06	0,9 C-0,96	10	0,27	50	-	80	-	OF
BMU MD 270 (K2D38)						-25..45	70	100	BI, MM
BMU MD 350 OF (K2D39)	0,06	0,9 C-0,96	10	0,35	35	-	80	-	BI
BMU MD 350 (K2D40)						-25..45	70	100	BI, MM
BMU MD 500 OF (K2D41)	0,06	0,9 C-0,96	10	0,5	35	-	80	-	OF
BMU MD 500 (K2D42)						-25..45	70	100	BI, MM
BMU MD 700 OF (K2D43)	0,06	0,8 C-0,96	10	0,7	25	-	80	-	BI
BMU MD 700 (K2D44)						-25..45	70	100	BI, MM
DC MINI MD 7/185 (K2G46)	0,05	0,95	7	0,185	50	-20..50	70	100	II, MM
DC MINI MD 7/185 OF (K2G47)						-	80	-	OF
DC MINI MD 18/200-450 (K2G48)	0,12	0,97	7,6-17,1	0,2-0,45	50	-20..50	80	100	II, MM
DC MINI MD 18/200-450 OF (K2G49)						-	80	-	OF

Notes: [1] – t_c for OF version is measured on the cap of C14 or C32 capacitor. [2] – The products have an overheating protection (C.5.a). [3] – Use: II=Class II, independent, IP20; BI=Built-in with case; OF=Built-in open frame; MM= VDE 0710 T14 ("MM" triangle marking).

Connections	Independent models	Built-in models
Connection to supply (PRI)	MICRO MD models: screw, 0,75-2,5 mm; diam. 3-8 mm MINI MD models, MINI LP models, DC MINI MD models: screwless, 0,75-1,5 mm; diam. 5-8 mm	MICRO MD models: screw, 0,5-2,5 mm DC MINI MD models: screwless, 0,5-1,5 mm Other models: screwless, 0,2-1,5 mm
Connection to supply for looping (PRI)	MINI MD FDIM models, MINI MD LP models, MINI LP models: screwless, 0,75-1,5 mm; diam. 5-8 mm	MINI MD FDIM models, MINI MD LP models, MINI LP models: screwless, 0,2-1,5 mm
Connection to load (SEC)	MICRO MD models: screw, 0,5-2,5 mm; diam. 3-8 mm MINI MD models, MINI LP models: screwless, 0,2-1,5 mm; diam. 3-8 mm DC MINI MD models: screwless, 0,5-1,5 mm; diam. 3-8 mm	MICRO MD models: screw, 0,5-2,5 mm DC MINI MD models: screwless, 0,5-1,5 mm Other models: screwless, 0,2-1,5 mm

Additional information			
All models have the following features: AC/DC P/S for LED; short-circuit proof type; impulse withstand category II; Pollution degree 2 (Normal Pollution); Material group IIIa; the material of enclosure was tested with favourable result for Glow-wire at temperature 850/960 °C. OF models have been tested in an enclosure with same dimensions as independent models. In the final application the use of the controlgears shall be according to IEC 60598-1 or national deviations of the country where installed:			
INSULATION (B= basic, S= supplementary, D= double or reinforced)	independent models	BI models	OF models
PRI ↔ SEC	R	R	R
active parts ↔ touchable parts	R	B	-
active parts ↔ bottom side of enclosure	R	R	-
Models with case are suitable for direct mounting on normally flammable surfaces (EN 60598-1:2015, VDE 0710 T14 for "MM" triangle marking) with tc upward only for values up to the following t _c value:			max. t _c (°C)
DC MINI MD 18/200-450			70
All other models			tc declared